

CLAIMS:

1. A laser station for an interactive target system; the laser station comprising:

a controller, and

a laser station, said laser station comprising a light emitting device and a charging apparatus;

the light emitting device being operable to fire discreet beams of energy at said targets; the light emitting device sending a signal to the controller each time the light emitting device is activated to fire a beam of energy;

the charging apparatus including an activity device which is operable by a participant and a detector which is activated as the participant operates the activity device; said detector sending a signal to the controller each time the detector is activated;

said controller determining the number of shots which can be fired from the light emitting device based upon the signals from the light emitting device and from the charging apparatus.

2. The improvement of claim 1 wherein said activity is selected from a physical activity, a skill activity, and combinations thereof.

3. The improvement of claim 2 wherein said activity is a pumping activity.

4. The improvement of claim 3 wherein said pumping activity is a hand pumping activity.

5. The improvement of claim 3 wherein said pumping activity is a foot pumping activity.

6. The improvement of claim 2 wherein said activity is a stepping activity.
7. The improvement of claim 6 wherein said activity is stair stepping activity.
8. The improvement of claim 2 wherein said activity is a cranking activity.
9. The improvement of claim 2 wherein said activity is a walking or running activity.
10. The improvement of claim 2 wherein said activity involve passing balls through and/or into said light emitting device.
11. The improvement of claim of claim 2 wherein said charging system activates a plurality of elements in a random order; said activity involving pressing said elements in the same order in which they were activated.
12. The improvement of claim 11 wherein said elements comprise pegs which are raised, said activity comprising lowering said pegs in the same order in which they were raised.
13. The improvement of claim 11 wherein said elements comprise lighted buttons; said activity comprising pressing said buttons in the same order in which they were lit.
14. The improvement of claim 2 wherein said charging system comprises a plurality of buttons of varying size; said activity comprising pressing said buttons.
15. The improvement of claim 14 wherein said buttons are arranged in a generally vertical pattern, with a largest of the buttons being the lowest button and the smallest of the buttons being the highest button.

16. An amusement system comprising:

a plurality of light activated targets

a laser station including a light emitting device and an activity-associated charging apparatus at which a participant can perform an activity; the light emitting device being operable when to fire beams of energy at said targets, said light emitting device generating a signal each time it is fired; the charging apparatus including a detector which monitors performance of the activity at said activity station; and

a controller; said controller being operatively connected to said light emitting device to limit the number of times the light emitting device can be activated, the controller receiving said signals from said light emitting device and said charging apparatus and, in response to said signals, controlling the number of times the light emitting device can be activated.

17. A method of controlling a simulated laser-target attraction; the attraction comprising a plurality of light activated targets and a laser station; the laser station comprising a light emitting device and an charging apparatus; the light emitting device being operable by a participant to fire a beam of energy at the targets; the charging apparatus being operated by a participant by engaging in an activity; the charging apparatus, when operated, increasing the number of shots which can be fired from light emitting device; the method comprising:

monitoring the number of shots which can be fired from the light emitting device, and preventing firing of the light emitting device if the number of shots which can be fired is zero;

increasing the number of shots which can be fired by the light emitting device by a predetermined amount upon successful completion of the activity or upon successful completion of a predetermined number of iterations of the activity by the participant at the charging apparatus;

decreasing the number of shots which can be fired by the light emitting device each time the light emitting device is fired;

detecting when the target is hit by a light beam from the light emitting device; and

initiating a target-hit response each time a target is hit.

18. The method of claim 17 wherein said target-hit response includes is selected from visual effects, sound effects, activation of deactivated targets, deactivation of activated targets, and combinations thereof.

19. The method of claim 18 including a step of determining a score for the participant or participants at the laser station.

20. The method of claim 19 wherein each target is provided with a score value; said step of determining a score comprising a shoot-score based upon the participant's hitting of the targets, the shoot-score being the sum of the score value for each target hit.

21. The method of claim 19 including a step of indicating which targets are active and which targets are inactive; providing the active targets with positive score values and the deactivated targets with negative score values.

22. The method of claim 19 wherein the step of determining a score comprises determining a charging-score based upon performance of the activity at the charging apparatus.

23. The method of claim 22 wherein said activity is selected from a physical activity, a skill activity, and combinations thereof; said charging score being based upon the number of iterations of the physical or skill activity performed in a predetermined time, the time taken to complete the skill activity, or upon successful completion of a skill activity.

24. The method of claim 22 wherein said charging score is decremented if the skill activity is completed incorrectly.

25. The method of claim 23 including a step of decrementing the number of shots which can be fired from the light emitting device by a predetermined amount upon incorrect completion of a skill activity.